

# **Directory and File Name Guidelines and Standards** **For Release A Pre-Release B Testbed**

Version 3.1, September 5, 1996

## **Changes in 3.1**

Use of suffixes .CFG, .PCFG, .ACFG

Defined additional suffixes

keyfile naming standard

## **Changes in 3.0**

Guidelines for HTML directories included

changed suffix for shared libraries from .sh to .so/.sl

PENDING: the figure showing the directories could not be updated due to an MS Word problem.

## **1. Purpose**

This document provides guidelines and standards for the directory structure and names of files, as applicable to Release A production platforms installed at the DAACs. This is a proposal intended for review.

## **2. Principles**

The following are considerations which apply to these guidelines:

1. The directory structure must make it easy for operators to locate files or recognise their purpose.
2. The directory structure should separate read-only files or files which change rarely, from those which are highly volatile.
3. Directory structure and naming conventions should make it easy to script back-up procedures.
4. The directory structure must clearly separate the executables and other files required by different COTS products.
5. Since ECS platforms may share multiple subsystems, naming conventions must ensure uniqueness of file names without requiring a lot of co-ordination across subsystems.

6. Naming conventions should make it easier to release patches safely.
7. File names should identify the type of file, even if this is redundant to the directory organisation.
8. Wherever directory and file names (or portions thereof) are constants for a given execution, they should be configuration parameters. (As a consequence, many of the following rules are of no interest to programs, because they should be configuration parameter values)
9. Wherever the use of COTS requires directory and file conventions, they take precedence over the guidelines listed here. Otherwise, the guidelines apply.
10. The naming conventions specified in Program Instruction SD-1-015 apply.

### 3. Open Issues

The following issues are currently unresolved:

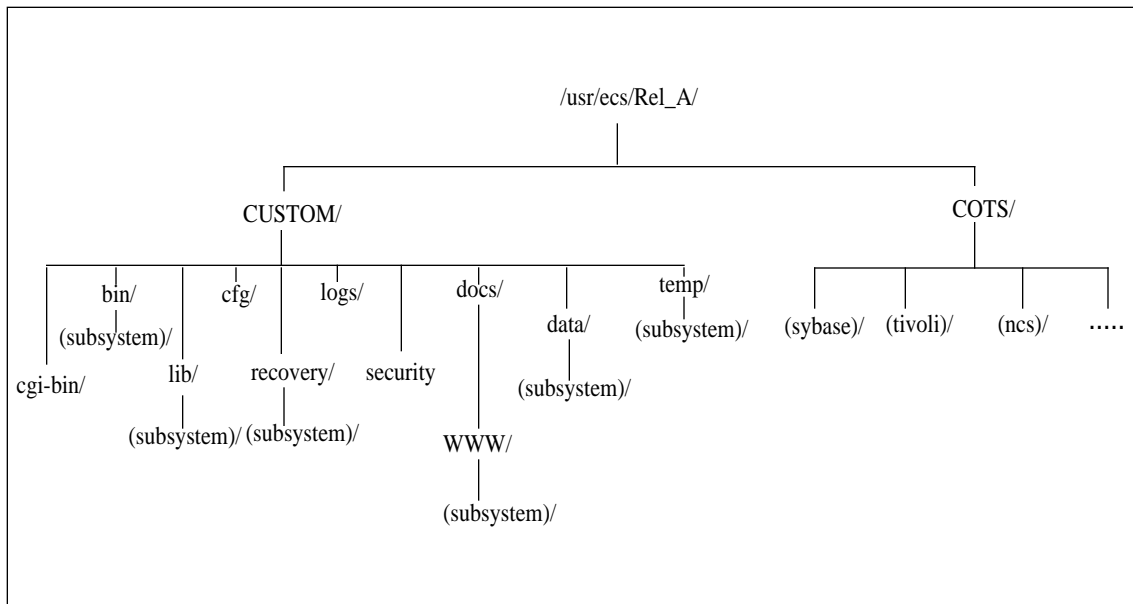
1. Naming conventions are needed for files belonging to different modes or versions. Mode / version should be reflected in the directory tree (i.e., files belonging to different modes should be in different directories). However, it remains undetermined where in the directory tree the distinction is best made.
2. Naming conventions for COTS directories
6. Suffix use needs to be documented, and collisions need to be identified and resolved.

### 4. Directory Structure

The Release A directory structure is shown in Figure 1. Each directory is described in one of the following sections, and files shall be organised in accordance with the guidelines described. However, a platform need not have the full directory tree (if some directories are not required); and a platform may have other directories which contain items not covered by these guidelines.

The pathname used for Release A ECS files will be `"/usr/ecs/Rel_A/"`. The directory is further subdivided into `"CUSTOM/"` and `"COTS/"`. The COTS directory is reserved for the installation of COTS software and COTS related files. It shall be divided into subdirectories by product (indicated by *(sybase)*, *((tivoli)...*).

The CUSTOM directory is reserved for ECS custom developed items, including software and data. It is divided into subdirectories according to purpose, and some of these subdirectories are further divided by subsystem, as indicated in Figure 1. The term "(*subsystem*)" in Figure 1 indicates a list of subdirectories named according to the subsystem identifiers (e.g., CSS, MSS, CLS, etc.).



**Figure 1: Release A Directory Structure**

The directory structure is a logical structure. A given platform may have many physical volumes. The logical directory structure may include symbolic links to other physical volumes.

## 5. CUSTOM/bin/

The directory is subdivided by subsystem. Each subsystem directory is named in accordance with the three-letter acronym of that subsystem.

The subdirectories contain executables, including configuration controlled shell script files. Shell script files shall not use a suffix to indicate the type of script but for all intents and purposes look like ordinary executables. M&O will also develop scripts, but they will go into an M&O assigned directory not covered by this guideline. Note: this does not mean that shell scripts in the development directories do not have suffixes; only, that in the production area, they will be without,

Files shall follow the naming conventions in SD-1-015, i.e., use *GrLiMeaningfulName[.suffix]*.

## 5.1 CUSTOM/cgi-bin/

For security reasons, all of the executable cgi programs invoked by HTML Web pages have to reside in this cgi-bin directory. Sub-directories are:

CLS/  
CSS/  
DMS/  
DPS/  
DSS/  
EDHS/  
INGEST/  
IOS/  
MSS/  
PDPS/  
.....

## 6. CUSTOM/lib/

The directory is subdivided by subsystem. Each subsystem directory is named in accordance with the three-letter acronym of that subsystem.

The subdirectories contain the ECS libraries provided by that subsystem.

Files shall follow the naming conventions in SD-1-015:

*libGrLiMeaningfulName.a* for static libraries, and  
*libGrLiMeaningfulName.sh* for shared libraries.

## 7. CUSTOM/cfg/

The directory shall contain configuration files for ECS custom programs.

Files shall follow the naming conventions in SD-1-015:

*GrLiMeaningfulName[Instance#].PCFG* shall denote process framework  
configuration files, and  
*GrLiMeaningfulName[Instance#].ACFG* shall denote application configuration  
filers.  
.... others to be proposed ....

*GrLiMeaningfulName[Instance#]* shall be the name of the corresponding server or application, optionally including its instance number (as specified in the CDS guidelines).

## **8. CUSTOM/recovery/**

The directory is reserved for files created for recovery purposes.

The directory is subdivided by subsystem. Each subsystem directory is named in accordance with the three-letter acronym of that subsystem.

Naming conventions for each subsystem directory shall be established by each subsystem group and shall be documented.

## **9. CUSTOM/logs/**

The directory shall contain the system and application event log files, including the MSS log file for this platform (but not PROCESSING log files such as the Processing History Log).

Files shall follow the naming conventions in SD-1-015, i.e., use

*GrLiMeaningfulName[Instance#].ALOG* for application logs.

*GrLiMeaningfulName[Instance#]* shall be the name of the corresponding server or application, optionally including its instance number (as specified in the CDS guidelines).

## **10. CUSTOM/security/**

Files shall follow the naming conventions in SD-1-015:

*GrLiMeaningfulName[Instance#].ACLDB* shall denote ACL databases

*GrLiMeaningfulName[Instance#]Keyfile* shall denote Keytab files

*GrLiMeaningfulName[Instance#]* shall be the name of the corresponding server or application, optionally including its instance number (as specified in the CDS guidelines).

### Note on Keytab files:

In the CSS configuration file there is an attribute by the name of KeyFile. This attribute should have a keytab file name value.

#### Example:

KeyFile = NameOfTheKeyTabFile

#### Example:

dce login principalName password  
rgy edit  
ktadd -p principalName -f NameOfTheKeyTabFile ops  
exit

## 11. CUSTOM/docs/

This directory is reserved for ECS documents, including help files. WWW (HTML) documents shall be separated from others by providing a subdirectory "WWW/".

The following is a list of document suffixes (compatible with MIME):

.txt	Plain text
.html	HTML document
.ps	PostScript
.pdf	Acrobat PDF
.gif	GIF image
.tiff	TIFF image
.xbm	XBM bitmap
.jpg or .jpeg	JPEG image
.aiff	AIFF sound
.au	AU sound
.mov	QuickTime movie
.mpeg or .mpg	MPEG movie
TBD others	e.g., ECS-HDF ?

The WWW/ directory will contain subdirectories organized by subsystem:

CLS/  
CSS/  
DMS/  
DPS/  
DSS/  
EDHS/  
INGEST/  
IOS/  
MSS/  
PDPS/  
.....

Each of the sub-directories contains HTML and image files.

~~Other does directory standards are still TBD.~~

## **12. CUSTOM/data**

The directory is subdivided by subsystem. Each subsystem directory is named in accordance with the three-letter acronym of that subsystem.

Each subsystem directory contains persistent data files required by that subsystem, which do not fall into any of the other categories. Examples are files needed by processing, e.g., staged data, processing history log, meta data control file; desktop files; databases; etc..

Naming conventions for each subsystem directory shall be established by each subsystem group and shall be documented.

A naming convention for naming Sybase files consistently across subsystems will be part of the database guidelines.

## **13. CUSTOM/temp/**

The directory is reserved for temporary files, i.e., files which do not persist beyond the current execution of a server or application.

Files in this directory will not be subject to back-up provisions.

The directory is subdivided by subsystem. Each subsystem directory is named in accordance with the three-letter acronym of that subsystem.

Naming conventions for each subsystem directory shall be established by each subsystem group and shall be documented.

## **14. COTS/**

The directory is reserved for COTS products, and shall be organised into separate subdirectories for each COTS (names TBD).

### **ncs/ the subdirectory for the Netscape Commerce Server (NCS)**

This directory will have a number of sub-directories for NCS binaries and server-generated config, logs and other directories following the default hierarchy of the NCS software. However, the ncs/cgi-bin/ and ncs/docs/ directories contain customized code and will be relocated as described earlier; ncs/docs/ will be renamed docs/WWW/. The ncs/mc-icons/ directory will be removed, since Web page images will also reside in the docs/WWW/ directory. The NCS has to be reconfigured to accommodate changes in directory locations and names.

## **15. Suffixes**

The following suffixes have been proposed so far:

.txt	Plain text
.html	HTML document
.ps	PostScript
.pdf	Acrobat PDF
.gif	GIF image
.tiff	TIFF image
.xbm	XBM bitmap
.jpg or .jpeg	JPEG image
.aiff	AIFF sound
.au	AU sound
.mov	QuickTime movie
.mpeg or .mpg	MPEG movie
.a	static library (SD-1-015)
.so, .sl	shared library .so (Sun/SGI), .sl (HP) (note deviation from SD-1-015)
.PCFG	Process Framework configuration file
.ACFG	Application configuration file <u>used by MSS when starting an “Application” (Application being a MSS system management concept)</u>
<u>.PCFG</u>	<u>Program configuration file, used by MSS when starting a “Program” (Program being a MSS system management concept)</u>
.ALOG	Application log file
.ACLDB	ACL database
keyfile	keytab file
.pcf	PRONG processing control file
.mcf	PRONG meta data control file
.his	PRONG processing history file
.pro	PRONG PGE profile
.slog, .ulog, .rlog	PRONG SMF logs
<u>.desc</u>	<u>data server descriptor file (DSS internal use)</u>



.adf data server application data (attributes) file (DSS internal use)

Please extend the list by providing the suffixes your application will use. This document will serve as a central registry of suffix usage.